

Status report on

$$\eta \rightarrow \pi^+ \pi^- e^+ e^-$$

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Phi-decays WG meeting 29-09-2006

Trailer

- ETA4CTAG, a new tag in town
- Software changes
- New entuples and first plots

ETA4CTAG

A new tag has been developed

`RAD_EVENT_MASK` bit 24 dedicated

Officially inserted on June, 30

For details see [KLOE memo 329](#)

ETA4CTAG

The new tag requires:

- 4 tracks coming from the IP
- high energy photon with good timing ($E > 250 \text{ MeV}$)
- mid-energy photons vetoed ($50 < E < 250 \text{ MeV}$)



~1% bias introduced
BR uncertainty $> 50\%$

ETA4CTAG

Problem with the insertion:

the streaming was not activated during
the summer production of MC2006

Wrong `talk_to` in the `dstmra.uic` file,

bug fixed with Moulson help, on September, 26

Memo update will come

Some “technicalities”

A four track vertex has to be found
but VTXFIN cannot be used

Crucianelli-Gatti ($K_s \rightarrow \pi^+ \pi^- e^+ e^-$)

are developing a dedicated routine:

VTXPLUS

We...

1. ...had a library trek: from charged to neutral kaons



2. ...grabbed VTXPLUS

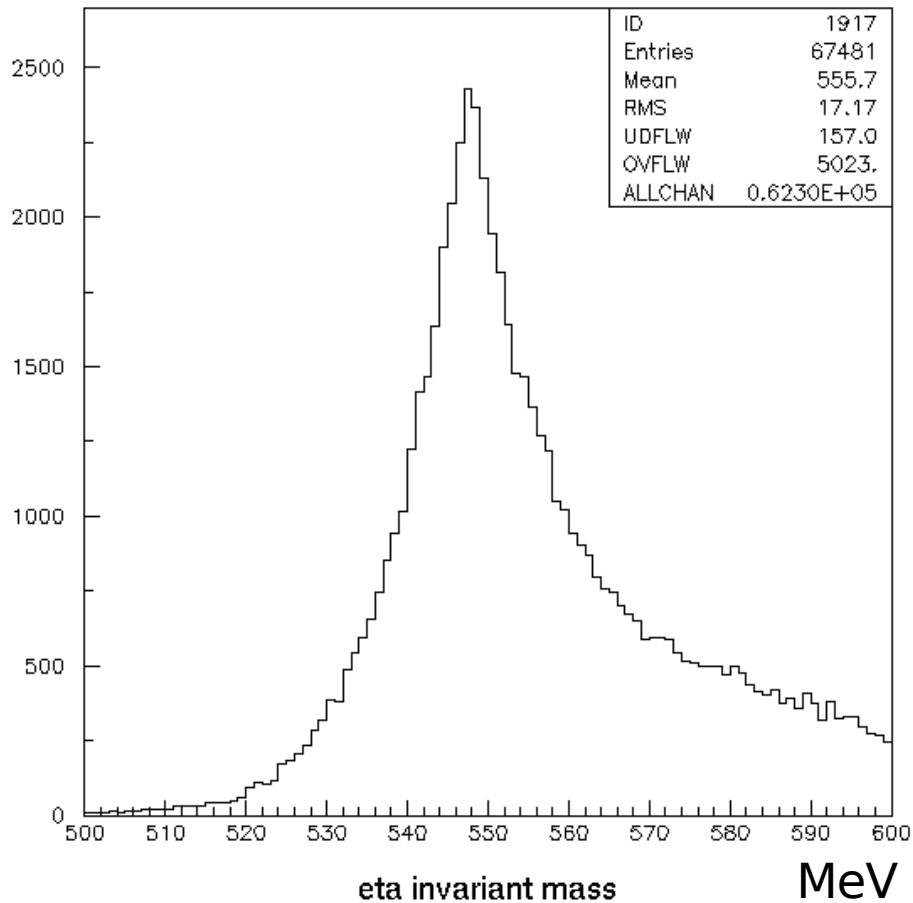


A first glance

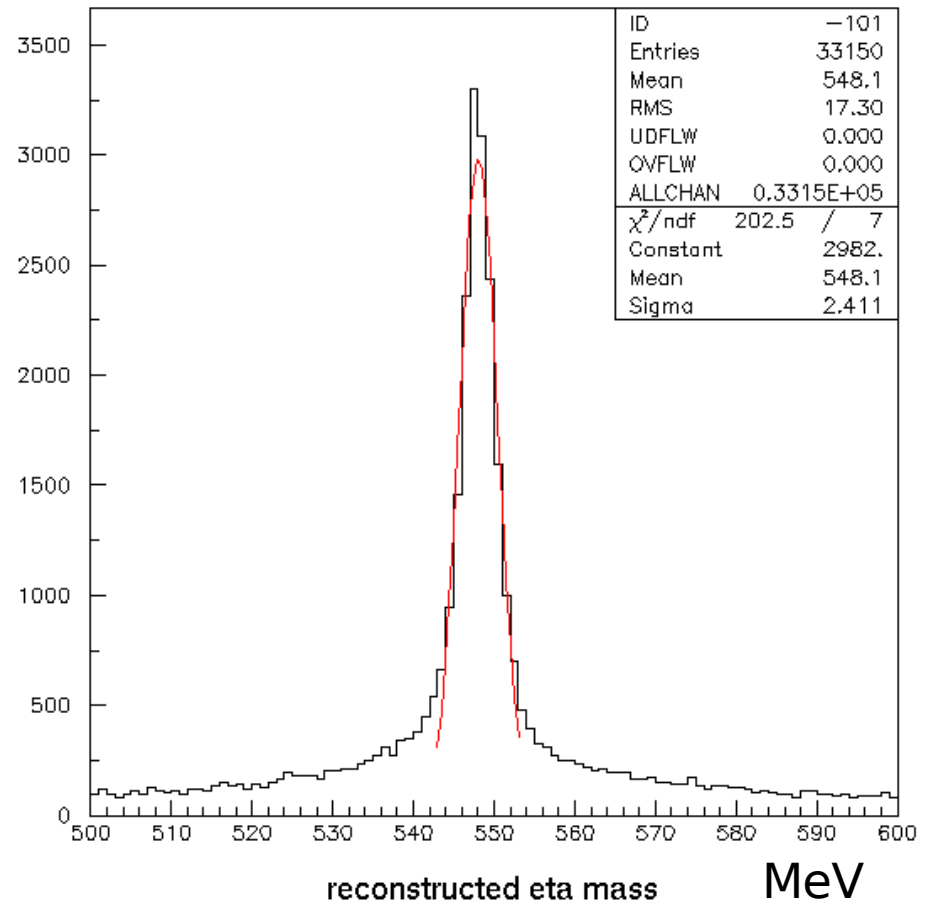
Before starting with massive entuple production
we are doing some “preliminary studies”
in order to tune scripts, cmd and uic files

A first glance

Signal MC
without four tracks vertex



Signal MC
with VTXPLUS

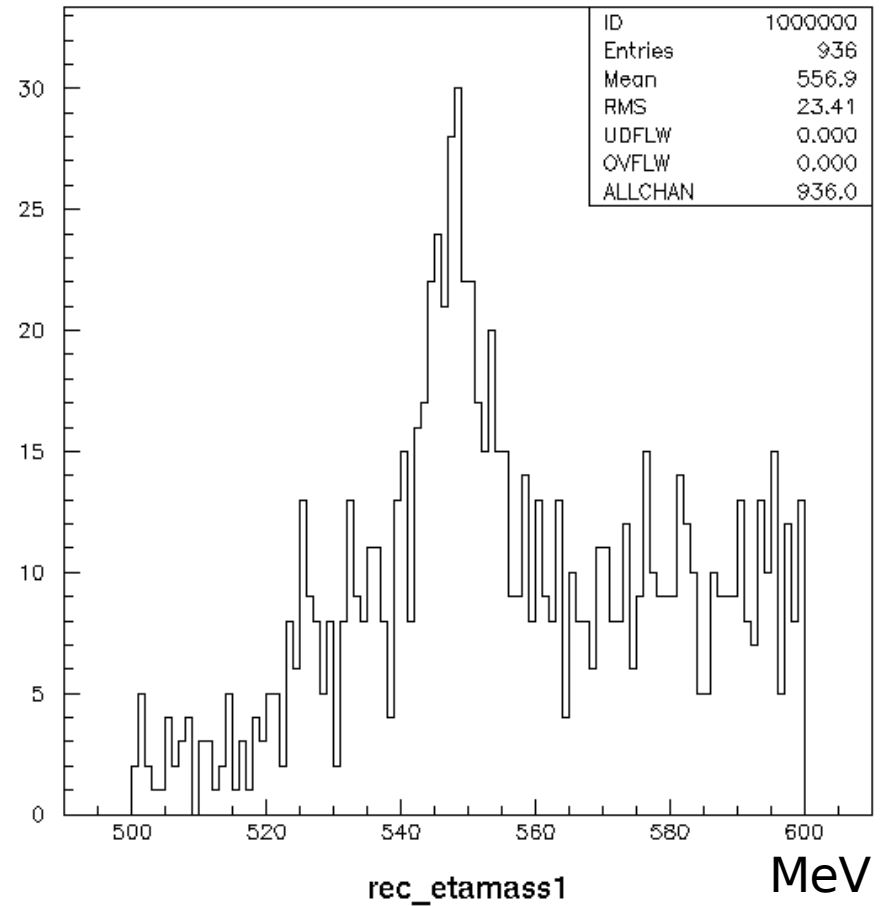
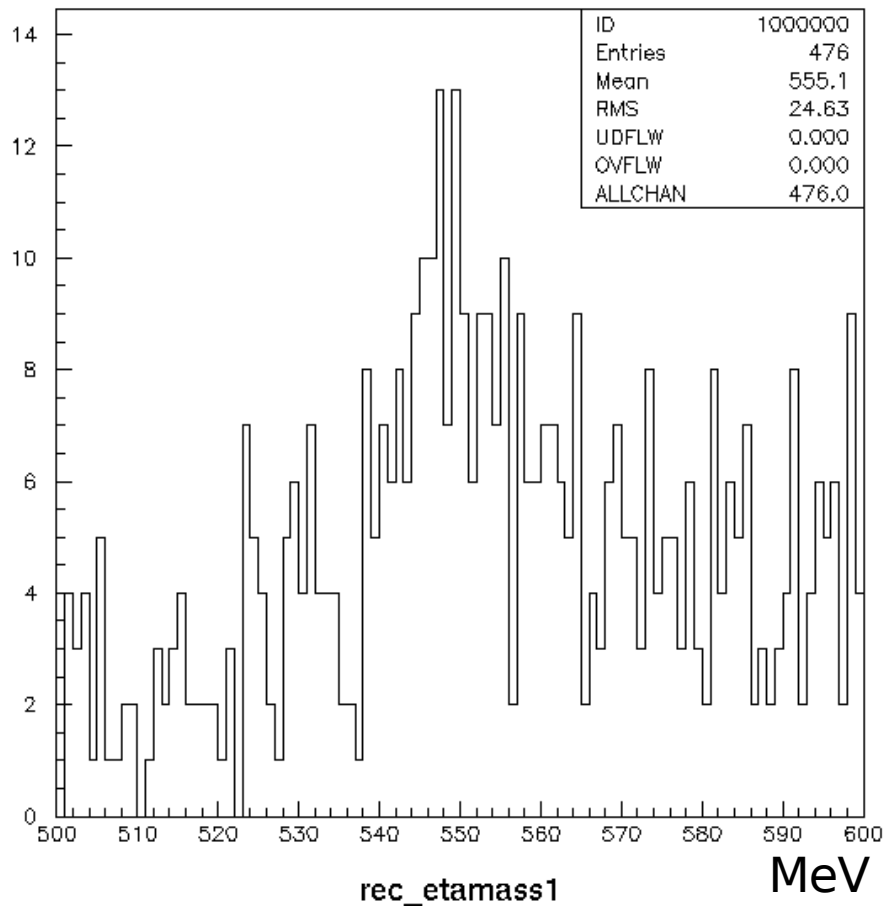


A first glance

MC 2006

$\sim 9 \text{ pb}^{-1}$

DATA



Events selected using the old streaming